

Figure 1 displays 12 histograms showing the distribution of the number of non-zero elements in the vector x for different values of n (10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120). The x-axis is labeled 'x' and ranges from 0 to 120. The y-axis is labeled 'Frequency' and ranges from 0 to 100. The distributions are centered around 60 for $n=10$ and shift to the right as n increases, with the peak frequency decreasing as n increases.